

### REMARKS

Claims 132-160 are pending in the present application and at issue. Claim 132 has been amended to further define the claimed invention. The amendment is supported by page 45, lines 29-30 of the specification.

The specification has been amended to correct the cross-reference to related applications and to correct several sequence identifiers. Figure 1C has also been inserted. This amendment is supported by the original specification, including the Sequence Listing.

It is respectfully submitted that the present amendment presents no new issues or new matter and places this case in condition for allowance. Reconsideration of the application in view of the above amendments and the following remarks is requested.

#### I. The Objection to Applicants' Claim of Priority

The Office objected to Applicants' claim of priority of Danish application no. 0272/95 filed March 17, 1995 because the specification does not refer to PCT/DK96/00105.

The specification has been amended to refer to the PCT application. Therefore, this objection has been overcome.

#### II. The Objection to the Specification

The Office objected to the specification on six grounds. Applicants submit that several grounds have been overcome by the amendments to the specification. The remaining grounds are respectfully traversed.

First, the Office Action stated that the application contains sequences (in particular the sequences shown in Figures 1 and 3) which are not identified by sequence identifiers. The brief description of the figures has been amended to insert the sequence identifiers. Therefore, this ground for the rejection has been overcome.

Second, the Office Action stated that a paper copy of the Sequence Listing is not the case. This ground is respectfully traversed. A paper copy of the Sequence Listing (71 pages) was submitted with the application as filed in December 2001.

Third, the Office Action objected to the hyperlink at page 89, line 7. The specification has been amended to delete the hyperlink. Therefore, this objection has been overcome.

Fourth, the Office objected to the specification because some abbreviations are not defined. The abbreviation "S-CEVU" is defined at page 57 of the specification and the

abbreviation "DSC" is defined at page 67 of the specification. Therefore, this objection has been overcome.

Fifth, the Office objected to the tables on pages 68, 70, and 71 because there are no headings and therefore it is unclear what the numbers 50, 200, 250, and 1000 and mean. This is respectfully traversed. The headings are provided in the first column. Thus, the numbers are in S-CEVU/I. Applicants therefore submit that this objection has been overcome.

Finally, the Office objected to the amendment because it is improper to add an incorporation by reference after filing. In order to advance prosecution, the incorporation by reference has been deleted.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 112. Applicants respectfully request reconsideration and withdrawal of the rejection.

### III. The Rejection of Claims 132-160 under 35 U.S.C. 112

Claims 132-160 are rejected under 35 U.S.C. 112, first paragraph, because the specification does not reasonably provide enablement for a detergent composition comprising an endoglucanase with an amino acid sequence 80% or 90% homologous to SEQ ID NO: 12 or encoded by a DNA that hybridizes to SEQ ID NO: 11 under hybridization conditions comprising a wash step at 60°C, 70°C or 75°C. This rejection is respectfully traversed.

It is well settled that "[t]he first paragraph of section 112 requires nothing more than objective enablement. How such a teaching is set forth, either by the use of illustrative examples or by broad terminology, is of no importance." *In re Marzocchi*, 169 USPQ 367, 369 (CCPA 1971). Moreover, "a specification disclosure which contains a teaching of the manner and process of making and using the invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as in compliance with the enabling requirement of the first paragraph of section 112 unless there is reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support." *In re Marzocchi*, 169 USPQ at 369.

Despite the disclosure of utility in the specification, the Office Action rejected the claims. The reasoning provided in the Office Action is that the specification does not establish the regions of protein structure which may be modified without effecting endoglucanase activity and the general tolerance of endoglucanase to modification and extent of such tolerance. Applicants respectfully submit that this reasoning is not sufficient to render the claims nonenabled.

The claimed enzymes are structurally similar because they hybridize under specified stringency conditions with the nucleic acid sequence of SEQ ID NO: 11 and/or have an amino acid sequence that is at least 80% identical with the amino acid sequence of SEQ ID NO: 12. One of ordinary skill in the art therefore would expect that the claimed enzymes have endoglucanase activity.

Moreover, Applicants disagree with the Office's statement that "it is not routine in the art to screen for multiple substitutions or multiple modifications, as encompassed by the instant claims...." Companies which develop enzymes are able to produce and screen thousands of enzymes in a short period of time. Indeed, enzymes companies have developed automated robotic systems for producing and screening enzymes.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 112. Applicants respectfully request reconsideration and withdrawal of the rejection.

#### **IV. The Rejection of Claims 132-160 under 35 U.S.C. 103**

Claims 132-160 are rejected under 35 U.S.C. 103 as being unpatentable over Skinner et al. (U.S. Patent No. 4,081,328) in view of Saito et al. (U.S. Patent No. 5,314,637). This rejection is respectfully traversed.

Skinner et al. disclose a *Thielavia terrestris* cellulase which exhibits optimal cellulase activity at temperatures between 60 and 70°C and acid conditions of pH from about 5.0 to about 5.6. However, Skinner et al. do not teach or suggest detergent compositions, let alone detergent compositions having an alkaline pH, as claimed herein. Moreover, because of the acidic pH of the Skinner et al. cellulase, one of ordinary skill in the art would not have been motivated to use the Skinner et al. cellulase in an alkaline detergent composition.

Saito et al. disclose a detergent composition comprising an alkaline cellulase derived from *Bacillus*. See, e.g., column 1, lines 65-68 and column 2, lines 15-17. Thus, Saito et al. confirm that one of ordinary skill in the art would not have been motivated to use the Skinner et al. cellulase in an alkaline detergent composition.

Moreover, as stated in the previous amendment, the instant specification demonstrates that the cellulases of the present invention have improved performance in detergents. See, e.g., pages 68-72 of the specification. These results are surprising and unexpected.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 103. Applicants respectfully request reconsideration and withdrawal of the rejection.

**V. Conclusion**

In view of the above, it is respectfully submitted that all claims are in condition for allowance. Early action to that end is respectfully requested. The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application.

Respectfully submitted,

Date: April 26, 2004



Elias J. Lambiris, Reg. No. 33,728  
Novozymes North America, Inc.  
500 Fifth Avenue, Suite 1600  
New York, NY 10110  
(212) 840-0097